

Getting Started Guide

Welcome to your UPStealth 2 Uninterruptible Power Supply (UPStealth 2). The following is important information to know prior to getting started with your product.

UPStealth 2 User Manual

Take the time to read the UPStealth 2 User Manual, it is provided with your product to help you understand how to safely and properly prepare, install and operate your UPStealth 2. A copy of the manual can also be found at zincfive.com/support.

Pre-Installation & Installation Checklist

Provided in your Getting Started Guide are two documents, the Pre-Installation Checklist and Installation Checklist. Utilize the Pre-Installation Checklist to make sure your site is ready for installing the UPStealth 2, and the Installation Checklist will take you through the proper and safe installation of your equipment.

UPStealth 2 Updates

Firmware and Software updates for the UPStealth 2 are available to download via zincfive.com/support/upstealth2updates. Take the time to fill out the form on this page so you can be notified of future updates.

UPStealth 2 Software Network Configuration

The UPStealth 2 Software can be used to locally or remotely manage and monitor the status of an individual UPStealth 2. To connect to the UPStealth 2 Software, you will need to configure your computer's Network settings. Below are instructions on how to connect to the web server via your computer's browser in the UPStealth 2 UPS with your Windows or Mac computer. Once completed, enter your UPStealth 2 IP address (192.168.1.51) into your web browser and log in to the UPStealth 2 using the following defaults.

Username: admin

Password: user

WINDOWS

- Click on Settings
- Click on Network and Internet
- Click on Ethernet
- Change Adapter Options
- Select an ethernet port, right click and select Properties
- Find and select Internet Protocol Version 4 (TCP/IPv4)
- Click Properties
- Select the circle "Use the following IP Address"; then insert 192.168.1.52
- Insert Subnet Mask: 255.255.255.0
- Click on Okay
- Click on Close

MAC

- Click on the Apple Icon in the top left and select System Preferences
- Click on Network
- Click on the Configure IPv4 dropdown and select Manually
- In the IP Address field, insert 192.168.1.52 (notice this is slightly different from your UPStealth 2 UPS 1000W IP Address of 192.168.1.51)
- In the Subnet Mask field, insert 255.255.255.0.

UPStealth 2 Pre-Installation Checklist

Prior to installing the UPStealth® 2, please utilize this checklist to inspect your site so that it is properly equipped to enable a successful installation.

Traffic Cabinet Requirements

- Confirm incoming utility service is 120Vac @60Hz and can supply the needed 30Amp current.
- Confirm the cabinet has the necessary 30Amp Breaker to feed utility service to the UPS System.
- Confirm incoming utility service is measuring between 109Vac to 129Vac.
- Measure voltage delta between incoming utility Neutral and GND. If the measurement is greater than 1.0Vac, do not install the UPStealth 2 until the integrity of the utility AC neutral is repaired.
- Inspect the incoming Hot/Neutral/Ground wires for cracked or missing insulation. Repair/replace any defective insulation.
- Verify that the incoming utility AC power conduit is dry and not full of water.
- Confirm the cabinet has adequate space for: UPStealth 2 UPS, Power Interface Module and Batteries:
 - UPStealth® 2 UPS 1000W: 17.0"W (19" w/ mounting) x 3.7" H x 11.6" D
 - UPStealth® 2 UPS 1500W: 17.0"W (19" w/ mounting) x 4.6" H x 11.6" D
 - PIM: 10" W x 6" H x 4" D
 - UPStealth® 2 Battery Panel: 19"W x 1.1" H x 24.4"D
 - UPStealth® 2 Battery Module: 17"W (19" w/ mounting) x 2.3"H 12.1"D
 - UPStealth® 2 XRT Battery 3600Wh IMS: 3.45"H x 16.77"W (19" w/ mounting) x 10.25"D
 - Z5 13-80 H S Battery (Qty. 4): 7.4"H X 10.9"W X 6.9"D (each battery)
- Confirm UPStealth 2 UPS air intake and exhaust have minimum 2" of clearance for airflow.
- Confirm the cabinet conflict monitor/MMU is able to switch to flashing mode for up to 45 seconds in the event of a brownout.
- Confirm the cabinet fan(s) and thermostat are functioning correctly.
- Ensure cabinet air intake is free from blockages and allows proper air flow into the cabinet.

Installation Wires

- 10-12AWG Wire is available to connect to the UPStealth® 2 PIM to Utility Input.
- 10-12AWG Wire is available to connect to the UPStealth® 2 PIM to Cabinet Load.

UPStealth 2 Installation Checklist

Please use this checklist to properly install the UPStealth® 2.

Tools Needed

- 1/8" Slotted screwdriver - used for relay contact terminals.
- 3/16" Slotted screwdriver - used for utility and load connections to PIM.
- #2 Phillips screwdrivers - used for mounting the product.
- Wire strippers. - used for proper stripping of wires.
- Crimp tool - used for terminating Ring or Spade Terminal Connectors. PIM terminal blocks are #8 screws.

- Voltmeter - used to check for voltage and to ensure proper connections.
- Socket wrench (10mm) - used to attach the DC Power Interconnect Cable to the nickel-zinc monobloc batteries.

Wiring Safety



Make sure the incoming utility line power is disconnected before making any wiring connections to the PIM.

Traffic Cabinet Installation - PIM

- Pre-install the mounting brackets onto the PIM then mount PIM to 19" rack, unistrut or side panel of the cabinet.
- Prepare wire connecting for the utility service to PIM: UTILITY INPUT and the PIM: CABINET LOAD to the cabinet. Do not make these connections at this time.
- For non-conduit wiring, use the provided knockout bushing to protect the wires.
- Wire from PIM: CABINET LOAD to the cabinet equipment terminal block using Ring or Spade Terminal Connectors.
 - PIM terminal block torque is 16 in. lbs.
- Install Conduit Cover over the PIM: CABINET LOAD.



Switch incoming utility service "OFF" before continuing.

- Wire from PIM: UTILITY INPUT to the incoming utility service using Ring or Spade Terminal Connectors.
 - PIM terminal block torque is 16 in. lbs.
- Install Conduit Cover over the PIM: UTILITY INPUT.
- Switch utility service "ON" to the PIM. The PIM will automatically go into BYPASS mode and the intersection will be live.

Traffic Cabinet Installation – UPStealth 2 UPS

- If unit is to be 19" rack mounted, pre-install the rack mounting brackets onto the UPS.
- Use included screws to mount the UPS into an available space.

Traffic Cabinet Installation – UPStealth 2 Battery Panel or Battery Module or XRT Battery 3600Wh

- UPStealth 2 Battery Panel: Place the speedy sleeve and the spacer bar between the cabinet shell and rack at the bottom of the cabinet. Slide the battery panel into place between the speedy sleeve and the sidewall of the 332/334 Cabinet. Once Battery Panel is in place, the speedy sleeve can then be pulled out or left in the cabinet for future use.
- UPStealth 2 Battery Module or XRT Battery 3600Wh to 19" rack: Pre-install the rack mounting brackets onto the unit and install into the rack where adequate space is available.
- UPStealth 2 Battery Module or XRT Battery 3600Wh on a shelf: Place unit in cabinet with adequate space for the cable connections.

Connecting Battery Panel or Battery Module to UPS and PIM

- Connect the Battery: BATTERY OUTPUT to the UPS: BATTERY INPUT via the provided Digital and DC Power Interconnect Cable.
- Connect the Battery: AC INPUT to the PIM: TO BATTERY AC IN via the supplied AC Power Interconnect Cable. Use the provided AC Power Daisy Chain Cable for configurations with >1 Battery.

Wiring the UPStealth 2 XRT Battery 3600Wh

Use the provided hardware to wire up the four monobloc nickel-zinc batteries using the four dedicated DC Power Interconnect Cables.



For each DC Power Interconnect Cable, check that the battery positive terminal (+) is fastened to the red wire and the battery negative (-) terminal is fastened to the black wire.

- Attach each DC Power Interconnect Cable to the XRT: BATTERY INPUTS 1-4.
- Connect the Battery Temperature Sensor to any Battery Terminal.

Connecting UPStealth 2 XRT Battery 3600Wh to UPS and PIM

- Switch the XRT AC and DC Breakers to the “OFF” position.
- Connect the XRT: BATTERY OUTPUT to the UPS: BATTERY INPUT via the provided Digital and DC Power Interconnect Cable.
- Connect the XRT: AC INPUT to the PIM: TO BATTERY AC IN using the provided Locking AC Power Interconnect Cable.
- Switch the XRT AC and DC Breakers to the “ON” position.

Connecting the UPStealth 2 UPS with PIM

- Connect the UPS: AC OUTPUT TO PIM to the PIM: FROM UPS AC OUT via the provided AC Power Interconnect Cables.
- Connect the PIM: TO UPS AC IN to the UPS: AC INPUT FROM PIM via the provided AC Power Interconnect Cables.

Traffic Cabinet Installation – Power on test

- Confirm PIM BYPASS light is OFF.
- Check LED’s on Batteries to determine system state:
 - GREEN = Discharging
 - BLUE = Charging
 - WHITE Blinking = Charged, battery at rest.
- On the PIM, turn the UPS TEST switch to TEST and verify the following:
 - Intersection maintains normal operation.
 - UPS display shows “BACKUP MODE”.
 - UPS Status LED “BACKUP MODE ON” is lit (Green).
 - Battery LED’s turn green.
 - PIM BYPASS light remains OFF.
- On the PIM, turn the UPS Test switch to OFF and verify the following:
 - Intersection maintains normal operation.
 - UPS display shows “NORMAL”. This may take up to 30 seconds.
 - UPS Status LED “BACKUP MODE ON” is off.
 - Battery LED’s turn blue.
 - PIM Bypass light remains OFF.